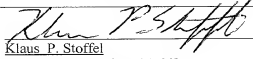


FORM PTO-1390 (REV 10-94)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		DOC# #: 4781-42PUS
<b>TRANSMITTAL LETTER TO THE UNITED STATES  DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING  UNDER 35 U.S.C. 371</b>				U.S. APPLICATION NO. <b>097582122</b>
INTERNATIONAL APPLICATION NO. <b>PCT/CH98/00533</b>		INTERNATIONAL FILING DATE <b>December 11, 1998</b>		PRIORITY DATE CLAIMED <b>December 23, 1997</b>
TITLE OF INVENTION  <b>Cable Elevator With A Drive Plate</b>				
APPLICANT(S) FOR DO/EO/US  <b>Ernst ACH</b>				
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:				
1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1). 4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US) 6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An EXECUTED oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). <b>Items 11. to 16. Below concern other document(s) or information included:</b> 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment. 14. <input type="checkbox"/> A substitute specification. 15. <input type="checkbox"/> A change of power of attorney and/or address letter. 16. <input checked="" type="checkbox"/> Other items or information ( <i>specify</i> ): PCT Publication Sheet, Int'l Preliminary Examination Report, Int'l Search Report, PCT Request, Notice Informing the Applicant of the Communication of the Int'l Application to the Designated Offices; Notification of Receipt of Record Copy,				

526 Rec'd PCT/PTO 22 JUN 2000

U.S. APPLICATION NO. (if known) 09/582122		INTERNATIONAL APPLICATION NO. PCT/CH98/00533		ATTORNEY'S DOCKET NUMBER 4781-42PUS
17.[x]The following fees are submitted:				
<b>Basic National Fee (37 CFR 1.492(a)(1)-(5)):</b>				
Search Report has been prepared by the EPO or JPO .....				\$840.00
International preliminary examination fee paid to USPTO (37 CFR 1.482) .....				\$670.00
No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) .....				\$760.00
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO .....				\$970.00
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) .....				\$96.00
<b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>				<b>\$840</b>
Surcharge of <b>\$130.00</b> for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$
Claims	Number Filed	Number Extra	Rate	
Total Claims	8 - 20 =	0	x <b>\$18.00</b>	\$
Independent Claims	1 - 3 =	0	x <b>\$78.00</b>	\$
Multiple dependent claim(s) (if applicable)			+ <b>\$260.00</b>	\$
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$840</b>
Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).				\$
<b>SUBTOTAL =</b>				<b>\$840</b>
Processing fee of <b>\$130.00</b> for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$
<b>TOTAL NATIONAL FEE =</b>				<b>\$840</b>
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by the appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00</b> per property				\$
<b>TOTAL FEES ENCLOSED</b>				<b>\$840</b>
<b>Amount to be refunded:</b>				\$
<b>charged:</b>				\$
a. <input checked="" type="checkbox"/> One check in the amount of \$ <u>840</u> to cover the above fees is/are enclosed.				
b. <input type="checkbox"/> Please charge my Deposit Account No. <u>03-2412</u> in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.				
c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>03-2412</u> . A duplicate copy of this sheet is enclosed.				
<b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</b>				
SEND ALL CORRESPONDENCE TO: <u>Klaus P. Stoffel</u> Cohen, Pontani, Lieberman & Pavane 551 Fifth Avenue, Suite 1210 New York, New York 10176		 <u>Klaus P. Stoffel</u> <u>Registration Number: 31.668</u> <u>Tel: (212) 687-2770</u>		

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re National Phase PCT Application of

Ernst ACH

International Appln. No.: PCT/CH98/00533

International Filing Date: December 11, 1998

For: Cable Elevator With A Drive Plate

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents

Washington, D.C. 20231

**BOX PCT**

S I R:

Prior to the issuance of a first Office Action and simultaneously with the filing of the present application, please amend said application as follows:

In the Specification:

Page 1, delete line 1;

line 4, insert --BACKGROUND OF THE INVENTION, Field of the  
Invention--;

line 5, delete "lift" and insert --elevator--;

line 9, delete "lift" and insert --an elevator--;

line 11, insert --Discussion of the Prior Art--;

line 12, delete "A lift" and insert --An elevator--;

line 14, delete "guide" and insert --guides--;

line 18, delete "The latter means" and insert --This results in--;

line 22, delete "lift" and insert --elevator--;

line 23, delete "lifts" and insert --elevators--;

line 26, insert --SUMMARY OF THE INVENTION--;

line 27, delete "a lift" and insert --an elevator--;

line 28, delete "lift" and insert --elevator--;

line 28, delete "lifts" and insert --elevators--;

delete lines 32 and 33 in their entirety.

Page 2,

line 1, delete "This" and insert --The--;

line 1, delete "lift" and insert --elevator--;

line 2, delete "and that the" and insert --. The--;

line 3, after "force of" insert --the--;

line 7, after "in" insert --an--;

line 9, delete "a lift" and insert --an elevator--;

line 9, after "without" insert --a--;

line 10, delete "lift" and insert --elevator--;

delete line 13.

Page 3, after line 2, insert --BRIEF DESCRIPTION OF THE DRAWINGS--

line 6, delete "," and insert --;--;

line 8, delete "," and insert --;--;

line 10, delete "," and insert --;--;

line 12, delete "," and insert --;--;

line 14, delete "," (second occurrence) and insert --;--;

line 16, after "guide" insert --;--;

line 19, insert --DETAILED DESCRIPTION OF THE  
PREFERRED EMBODIMENTS--;

line 22, delete "and" (second occurrence) and insert --;--;

line 22, after "30" insert --;--;

line 26, delete "this" and insert --the counterweight 34--;

line 28, delete "this illustration" and insert --Fig. 1--;

line 29, after "by" insert --the--;

line 30, after "and" insert --are--;

line 31, after "transmission" insert --7--.

Page 4, line 26, after "of" insert --the--;

line 26, after "(Fig. 5)," insert --the--;

line 27, after "and" (first occurrence) insert --the--.

Page 5,           line 6, after "1" insert --,--;

                  line 11, after "with" insert --the--;

                  line 11, after "9," insert --the--;

                  line 12, prior to "transmission" insert --the--;

                  line 12, after "with" insert --the--;

                  line 12, after "and" insert --the--.

Page 6,           line 1, delete "own";

                  line 11, after "and" insert --the--;

                  line 12, delete "lift" and insert --elevator--;

                  line 12, after "without" insert --an--;

                  line 14, after "in" insert --an--;

                  line 15, prior to "integrated" insert --an--;

                  line 20, insert the following:

--The invention is not limited by the embodiments described above which are presented as examples only but can be modified in various ways within the scope of protection defined by the appended patent claims.--

In the Claims:

Please cancel claims 1 to 7 and add the following new claims:

--8. A cable elevator, comprising: a shaft; first guides arranged in the shaft; second guides arranged in the shaft parallel to the first sides; a cage movably arranged on the first guides; a counterweight movably arranged on the second guides; an engine mount fastened to the guide rails of the cage and to the guide rails of the counterweight; and a drive engine arranged on the engine mount.

9. A cable elevator according to claim 8, wherein the guide rails of the cage are connected to and extend upwardly beyond the engine mount.

10. A cable elevator according to claim 8, wherein the guides for the counterweight are connected with the engine mount so as to end within it.

11. A cable elevator according to claim 8, wherein the drive engine includes a drive pulley, and further comprising support cables that lead from the drive pulley directly to a support cable fastening point at an underside of the cage and directly to an upper side of the counterweight.

12. A cable elevator according to claim 8, and further comprising means for connecting the engine mount with the guides of the cage and the guides of the counterweight in a vibration-damped manner.

13. A cable elevator according to claim 8, wherein the engine mount comprises end plates for fastening to the guide rails and an engine bearer, the end plates and the engine bearer being non-detachably fixedly interconnected.

14. A cable elevator according to claim 13, wherein the end plates of the engine mount form a butt joint connection for the guide rails of the cage.

15. A cable elevator according to claim 12, wherein the connecting means includes a fastening bracket that forms a butt joint connection for the guide rails of the cage.--



**REMARKS**

The present amendment is submitted prior to the issuance of a first Office Action and simultaneously with the filing of the present application.

With this amendment applicants have amended the specification, cancelled claims 1 to 7 and added new claims 8 to 15, all in an effort to place the application in better condition for examination.

Favorable action on the present application is respectfully requested.

Any additional fees or charges required at this time in connection with the application may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By: 

Klaus P. Stoffel  
Reg. No. 31,668  
551 Fifth Avenue, Suite 1210  
New York, N.Y. 10176  
(212) 687-2770

June 22, 2000

## DESCRIPTION

09/582122  
526 Rec'd PCT/PTO 22 JUN 2000CABLE ELEVATOR WITH A DRIVE PLATE

- 5 The present invention relates to a cable lift with drive pulley, consisting of a cage moving along at first separate guides, a counterweight moving along at second separate guides and a drive engine arranged in the shaft.

- Such a lift disposition needs no separate machine room, which gives lower plant costs and  
10 in addition offers the advantage of better utilisation of a building.

- A lift plant of the aforesaid kind is known from Japanese Utility Model publication No 50297/1992. Two columns in the form of two self-supporting U-section profile members serve as guide for the cage and for the counterweight. The two U-section profile members  
15 are closed off at the top by a crossbeam, which carries the drive engine. So that the rucksack cage can move to the height of the drive, the vertical part of the support frame of the cage extends only up to scarcely half the cage height, which produces a short vertical distance between the guide rollers. The latter means a high loading for the guide rollers, even merely by the empty cage. So that the entire equipment does not tilt away from the  
20 wall, the crossbeam must additionally be firmly connected with the shaft rear wall, which loads this with correspondingly large horizontal pulling forces. It is evident from the description that this lift is usable or provided for stroke lengths of two to three storeys and low speeds and loads. The construction is not suitable for larger lifts or installations with conventional drive components, as the U-shaped, one-piece double guide rails have to be  
25 provided disproportionately wide and heavy and specially processed.

- The present invention is based on the object of creating a lift without a machine room, the range of use of which lift corresponds with that of conventional lifts with a separate machine room for residential buildings with, for example, up to 15 storeys and a conveying load up to  
30 8 persons.

The object is met by the invention characterised in claim 1 and illustrated by way of example in the description and drawing.

This invention is distinguished in that an engine mount together with the lift drive is fastened to conventional guide pairs for the cage and the counterweight and that the vertical weight force of drive, cage and counterweight is conducted to the shaft floor exclusively by way of the two guide rail pairs and is supported there. Thus, economic, conventional guide rails find use, wherein the guides of the cage and the counterweight can be of different lengths for optimisation of the guide element spacings at the cage. Added to that is the further advantage that in ideal manner no bending moments act on the supporting guide rails by way of the drive, because through this kind of arrangement and fastening only vertical forces are exerted on the guide rails. Thus, a lift without machine room is realised, which can be equipped with only a new drive mount, but otherwise with conventional lift components, even with respect to motor, brake, transmission and guide rail holders.

Advantageous developments and improvements are indicated in the subclaims.

So that the cage with a normal rucksack support frame can travel to and beyond the height of the drive, the cage guides can extend beyond the engine mount still a bit further upwardly to approximately the shaft ceiling.

The introduction of the vertical force effects frictional coupling and mechanically positive coupling to both guide pairs, wherein the counterweight guides end, for example, within the engine mount.

A vibration-damped fastening of the engine mount to the guides can be produced with additional elements.

The support cables going away vertically downwards from the drive pulley are directly connected, without rollers for deflecting away or deflecting around, with the lower rear edge of the cage and with the upper side of the counterweight.

The fastening of the engine mount to the guides is effected by way of appropriately constructed end plates of the engine mount.

The fastening of the engine mount to the cage guides can advantageously take place at a butt joint location and thus replace connecting straps.

The engine mount is constructed as, for example, a simple welded construction and is composed of only two end plates, two connecting profile members and an engine bearer. The invention is more closely explained in the following on the basis of embodiments and illustrated in the drawings, in which:

5

Fig. 1 shows a side view of the upper shaft region with cage, engine mount and drive,

Fig. 2 shows a plan view of the engine mount,

10 

Fig. 3 shows a cross-section through the engine mount,

Fig. 4 shows a three-dimensional illustration of the engine mount,

Fig. 5 shows a plan view of the cage, the drive and partially of the counterweight,

15

Fig. 6 shows a detail of the vibration damping at the cage guide and

Fig. 7 shows a side view with the vibration damping at both guides.

20 The side view of Fig. 1 shows the upper part of a shaft 2 with the uppermost storey 10 and the shaft ceiling 23 closing off the shaft 2 at the top. A cage 1 is guided at cage guides 3 by means of upper and lower guide elements 29 and 30 and suspended at support cables 4, which are connected with the cage 1 at the rearward lower edge by way of a support cable fastening point 12. The support cable portions 4 below the cage 1 lead in the vertical plane to a counterweight 34 (Fig. 5), which is not visible here, to the upper part thereof, where they are connected with this. A cage door is designated by 32 and a storey door by 33. An engine mount 6 is fastened to the cage guides 3 and to counterweight guides 20 (Fig. 2), the latter not being visible in this illustration. A transmission 7 with a drive pulley 5 looped around by support cables 4 is placed on the engine mount 6. A motor 9 and a brake 8 are arranged on the upper side of the transmission 7 and operatively connected with the transmission. The cage guides 3 are fastened over the entire stroke length, and the counterweight guides 20 (Fig. 2), which are not visible here behind the cage guides 3, are fastened as far as under the engine mount 6, to a shaft wall at equal spacings. The outline 11 drawn in dashed lines shows the cage 1 at the position of the uppermost storey 10. In  
35 that case the cage 1 is already disposed at about the same height as the transmission 7.

The cage 1, however, still has available in addition an over-travel path of about one metre upwardly, which is possible thanks to the continuous cage guides 3 in the engine mount 6.

The plan view of the engine mount 6 in Fig. 2 shows the details of this, preferably in a construction produced by welding technology. The engine mount 6 has end plates 14 and 13 respectively at the left and the right, which are welded at the lefthand end face to a longer square tube 16 and at the righthand end face to a shorter square tube 15. An engine bearer 18 is non-detachably connected in like manner, off-centre between the two end faces of the square tubes 15 and 16, with these end faces. A passage 17 for the support cable 4 is present in the square tube 16 at the left near the engine bearer 18. The roughly indicated transmission 7 is detachably fastened on the engine bearer 18 by means of the bores 19 and screws, which are not shown. Equally, the position of the drive pulley 5 with the support cables 4 is indicated, wherein it is apparent that the support cables 4 lead downwardly to the cage 1 and to the counterweight 34 (Fig. 4) without diagonal pull. It is further apparent that the engine mount 6 is fastened not only to the cage guides 3, but also the counterweight guides 20 and that the counterweight guides 20 end below the square tubes 15 and 16.

The shapes and proportions of the parts used for the engine mount 6 are apparent in Fig. 3 as a cross-section through the plane of the passage 17. Thus, for example, it can be established that the upper end of a first counterweight guide 20 abuts the underside of the square tube 15/16. Equally, the underside of the square tube 15/16 serves, although not apparent here, as vertical abutment for the second counterweight guide 20. Further, it can be shown that the end plates 13 and 14, here as example the end plate 13, serve at the same time as connecting strap for a butt joint location 31 of the cage guide 3. As already mentioned earlier, the vertical weight forces of cage 1 (Fig. 5), counterweight 34 (Fig. 5) and drive are supported on the shaft floor 22 by way of the two guide rail pairs 3 and 20. The guide rails 3 and 20 can be set down on large-area foot plates 35 for the purpose of reducing the specific loading of the shaft floor 22. The guide holders 21, which are mounted at uniform spacings, serve not only for maintaining the guide geometry, but equally guarantee a sufficient buckling resistance of the guides 3 and 20 in the case of this, otherwise not usual, vertical loading.

The three-dimensional illustration in Fig. 4 shows the entire engine mount 6 in its physical form. As an additional feature, up to now not yet shown, only the optional reinforcement 24 under the surface of the engine bearer 18 is to be mentioned here.

5 The invention as a whole is more closely explained in the following by reference to Fig. 5 with the plan view of all components. Due to the rucksack arrangement of the cage 1 the upper guide elements 30 and the concealed guide elements 29 are disposed laterally spaced from the cage 1. The free projection surface, which results therefrom, between the guide elements 29 and 30 is used for the now partly visible counterweight 34 and the drive  
10 subassembly with the engine mount 6. The rail holders 21 were omitted from view in this representation in order to show that the drive subassembly with motor 9, brake 8, transmission 7 with drive pulley 5 and engine mount 6 have no kind of mechanical connection with any one shaft part. Also omitted was the speed limiter, which is placed on, for example, the square tube 15/16. The support cable fastening point 12 is displaced  
15 somewhat in the direction of the cage door 32 with respect to the centre between the cage guides 9 and with consideration of the asymmetrical weight distribution (door and door drive) of the cage 1. A control box, equally not illustrated, can be placed wherever desired. Various possibilities are offered for that purpose. Thus, this can be arranged by corresponding fastening elements, for example, similarly on the engine mount 6.

20 For the purpose of insulation of body sound, the engine mount 6 can optionally be fastened to the guide rails 3 and 20 in vibration-damped manner. Such a vibration damping between the engine mount 6 and the guides 3 and 20 is provided for higher speeds and demands on comfort. One possible solution for a vibration-damped mounting is illustrated in Figs. 6 and  
25 7 by way of example. For this purpose, new and, in part, changed parts are provided for the engine mount. Instead of the flat end plates 13 and 14 a lefthand and a righthand side bracket 28 are used, the vertical sides of which are non-detachably connected, analogously to the end plates 13 and 14, firmly with the square tubes 15 and 16. A righthand and lefthand fastening bracket 25 are screw-connected to the guide rails 3 and 20 in the same  
30 way as the end plates 15 and 16 by direct fastening. For the actual vibration damping, a larger damping element 26 for the cage guide 3 and a smaller damping element 27 for the counterweight guide 20 are placed between the horizontal support surfaces of the two side brackets 28 and fastening brackets 25. Centring pins 36 prevent, without transmission of body sound, a lateral displacement of the engine mount by possible vibrations during  
35 operation. Forces laterally engaging the engine mount 6 are not present, because, due to

the own weight of the drive and the load suspended by way of the support cables 4 without deflecting rollers, exclusively vertical forces act on the engine mount 6. The area, thickness and resilience of the damping elements 26 and 27 is matched to the specific loads prevailing at these locations.

5

The construction of the engine mount 6 is not limited, with respect to choice of profile member and joining technique, to the kind of the shown example. A construction with other profile shapes would also be possible for that purpose and the connections of the parts amongst one another could also be made by means of screw connections.

10

With respect to the motor 9 and transmission 7, any variant can be used for the drive of this lift without engine room, subject to be able to be arranged in the available space of this drive disposition. Due to the available surface area for the drive on the engine mount 6, a motor 9 is advantageously arranged in upright position. Equally, also a motor with integrated or attached coaxial transmission and brake and with a drive pulley going off at one side or two drive pulleys going off at both sides could be provided on the kind and arrangement of the engine mount 6 according to the invention, with appropriate adaptation of constructional details of the same.

15

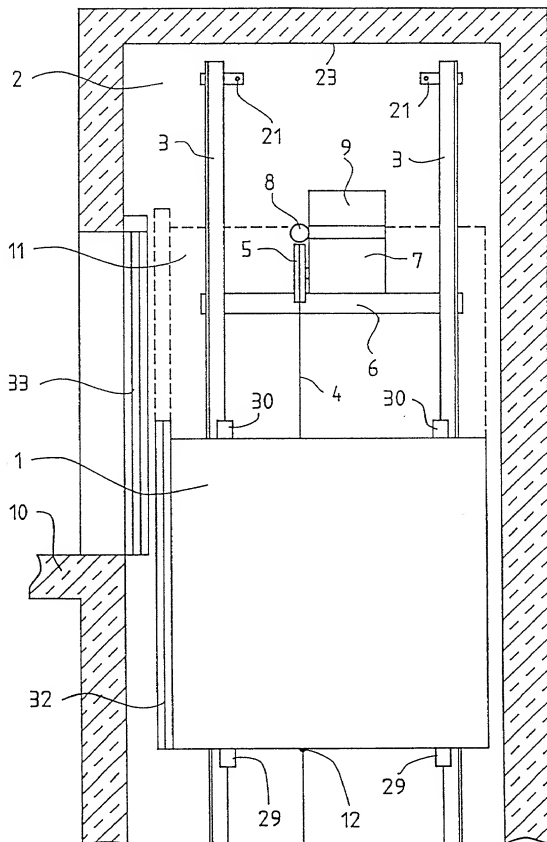
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## Claims

1. Cable lift with drive pulley (5), consisting of a cage (1) moving along at first guides (3), a counterweight (34) moving along at second guides (20) and a drive engine (5, 7 to 9) arranged in the shaft (2), characterised in that the drive engine (5, 7 to 9) is arranged on an engine mount (6) fastened both to the guide rails (3) of the cage (1) and to the separate guide rails (20) of the counterweight (34).
2. Cable lift according to claim 1, characterised in that the guide rails (3) of the cage (1) extend on upwardly beyond the engine mount (6) after the connection therewith.
3. Cable lift according to claim 1, characterised in that the guides (20) for the counterweight (34) are connected with the engine mount (6) so as to end within it.
4. Cable lift according to claim 1, characterised in that support cables (4) are led from the drive pulley (5) directly to a support cable fastening point (12) at the underside of the cage (1) and directly to the upper side of the counterweight (34).
5. Cable lift according to claim 1, characterised in that the engine mount (6) is connected in vibration-damped manner (25 to 28) with the guides (3) of the cage (1) and with the guides (20) of the counterweight (34).
6. Cable lift according to claim 1, characterised in that the engine mount (6) comprises end plates (13, 14) for the fastening to the guide rails (3, 20) and an engine bearer (18), wherein the end plates (13, 14) and the engine bearer (18) are non-detachably fixedly interconnected (15, 16).
7. Cable lift according to claim 5 or 6, characterised in that the end plates (13, 14) or fastening bracket (25) of the engine mount (6) form a butt joint connection (31) for the guide rails (3) of the cage (1).



Fig. 1



2/4

Fig. 2

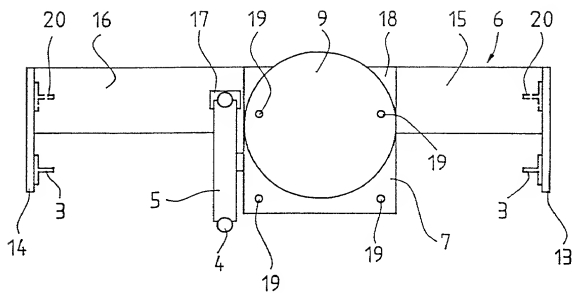
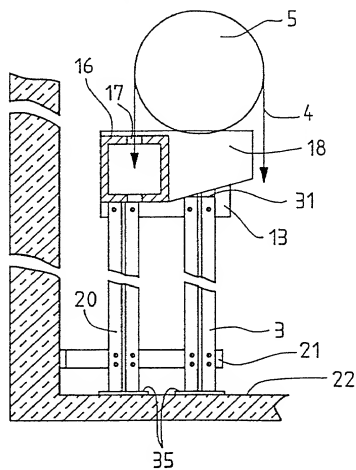


Fig. 3



3/4

Fig. 4

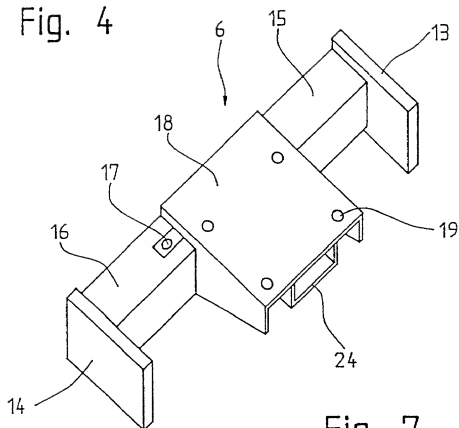


Fig. 7

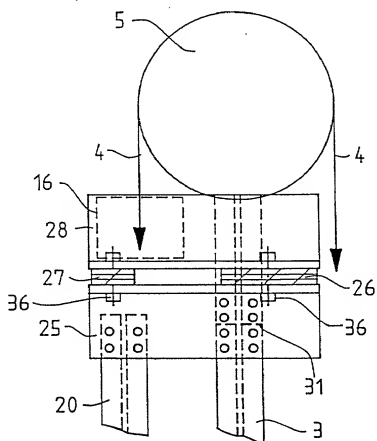
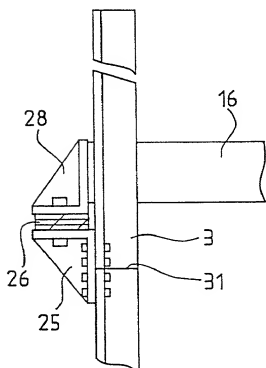
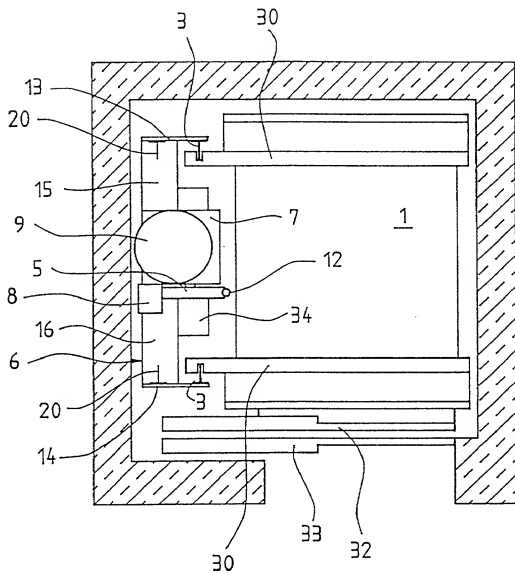


Fig. 6



002290-22128560

Fig. 5



**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY**  
Includes Reference to PCT International Applications

Attorney's Docket  
No. **4781-42PUS**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**CABLE ELEVATOR WITH A DRIVE PLATE**

the specification of which (check only one item below)

☒ [x] is attached hereto

☐ [ ] was filed as United States application

Serial No. \_

On \_

And was amended

On \_ (if applicable).

☒ [x] was filed as PCT international application

Number PCT/CH98/00533

On December 11, 1998

and was amended under PCT Article 19

on \_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of the application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

**PRIOR FOREIGN/PCT APPLICATIONS AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:**

Country (if PCT, indicate "PCT")	Application Number	Date of Filing (day, month, year)	Priority Claimed Under 35 U.S.C. 119	
Europe	97811016.1	December 23, 1997	<input checked="" type="checkbox"/> [x] YES	<input type="checkbox"/> [ ] NO
PCT	PCT/CH98/00533	December 11, 1998	<input checked="" type="checkbox"/> [x] YES	<input type="checkbox"/> [ ] NO
			<input type="checkbox"/> [ ] YES	<input type="checkbox"/> [ ] NO
			<input type="checkbox"/> [ ] YES	<input type="checkbox"/> [ ] NO
			<input type="checkbox"/> [ ] YES	<input type="checkbox"/> [ ] NO
			<input type="checkbox"/> [ ] YES	<input type="checkbox"/> [ ] NO
			<input type="checkbox"/> [ ] YES	<input type="checkbox"/> [ ] NO

**Combined Declaration for Patent Application and Power of Attorney (Continued)**  
(Includes Reference to PCT International Applications)

Attorney's Docket No.  
4781-42PUS

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:

U.S. APPLICATIONS		STATUS (check one)		
U S APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.				
PCT APPLICATION NO	PCT FILING DATE	U.S. SERIAL NUMBERS ASSIGNED (if any)		
PCT/CH98/00533	December 11, 1998		X	

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (*List name and registration number*)

15  
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**Combined Declaration for Patent Application and Power of Attorney (Continued)**  
(Includes Reference to PCT International Applications)

**Attorney's Docket No.**  
**4781-42PUS**

2 0 3	FULL NAME OF INVENTOR	FAMILY NAME	FIRST GIVEN NAME	SECOND GIVEN NAME
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	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE & ZIP CODE/COUNTRY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201 <i>E. J. Sch</i>	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
DATE <i>May 12 2000</i>	DATE	DATE

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